Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

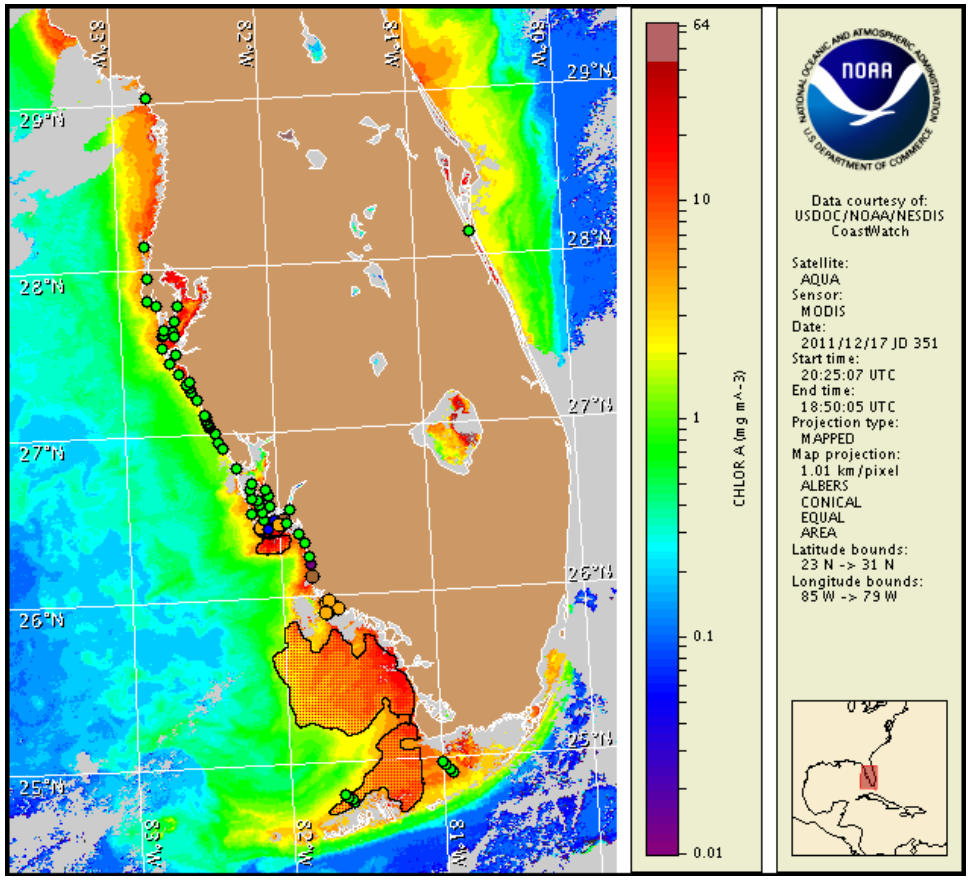
Monday, 19 December 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 15, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 9 to 16 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Conditions Report

A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County and alongshore and offshore central and southern Lee County, Collier County and northern Monroe County. Patchy harmful algae persist in the northern Pine Island Sound region of Lee County and north of the lower Florida Keys in southern Monroe County. Patchy high impacts are possible today through Wednesday in central Lee County (coastal Sanibel Island region) and in the Marco Island region of central Collier County. Patchy low impacts are possible today through Wednesday in the southern Pine Island Sound/San Carlos Bay region of Lee County and in southern Lee County. Patchy very low impacts are possible today through Wednesday in the northern Pine Island Sound region of Lee County, northern Collier County and northern Monroe County. No additional respiratory impacts are expected elsewhere alongshore southwest Florida including the Florida Keys today through Wednesday December 21. Reports of dead fish have been received from southern Lee County and Collier County.

Analysis

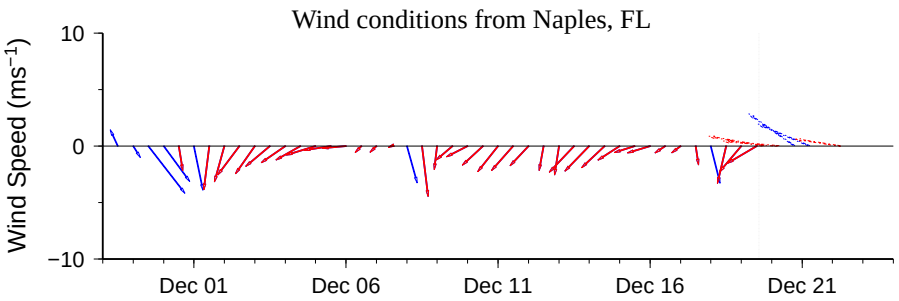
A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County and alongshore and offshore central and southern Lee County, Collier County and northern Monroe County. Patchy harmful algae persist in the northern Pine Island Sound region of Lee County and north of the lower Florida Keys in southern Monroe County. The most recent MODIS satellite image indicates the presence of elevated to high (>40 μg/L) levels of chlorophyll south of Sanibel Island in central Lee County with the highest levels centered about 26° 22’ 9.4’’N 82° 3’ 4.8’’W. Elevated levels of chlorophyll are also visible alongshore southern Lee County (6-10 μg/L) and alongshore Collier County (4-9 μg/L).

The most recent sample results indicate that *Karenia brevis* is not present in southern Lee County (Lynn Hall Park, Lovers Key State Park and Bonita Beach) and in far northern Collier County (Barefoot Beach and Vanderbilt Beach; FWRI 12/13-15). In eastern Sanibel Island (Tarpon Road Beach and Lighthouse Beach) in central Lee County and in northern to central Collier County (from Seagate to South Marco Beach), *K. brevis* concentrations range from ’very low a’ to ’medium’ (FWRI 12/14-15). Samples collected alongshore Pinellas and Sarasota counties and north of the lower Florida Keys all indicate that *K. brevis* is not present (FWRI, SCHD, MML 12/12-16).

Today through Wednesday, forecast winds will increase the potential for impacts in the coastal Sanibel Island region of central Lee County and in the Marco Island region of central Collier County. Southerly transport of the bloom is possible today through Wednesday.

Urízar, Burrows

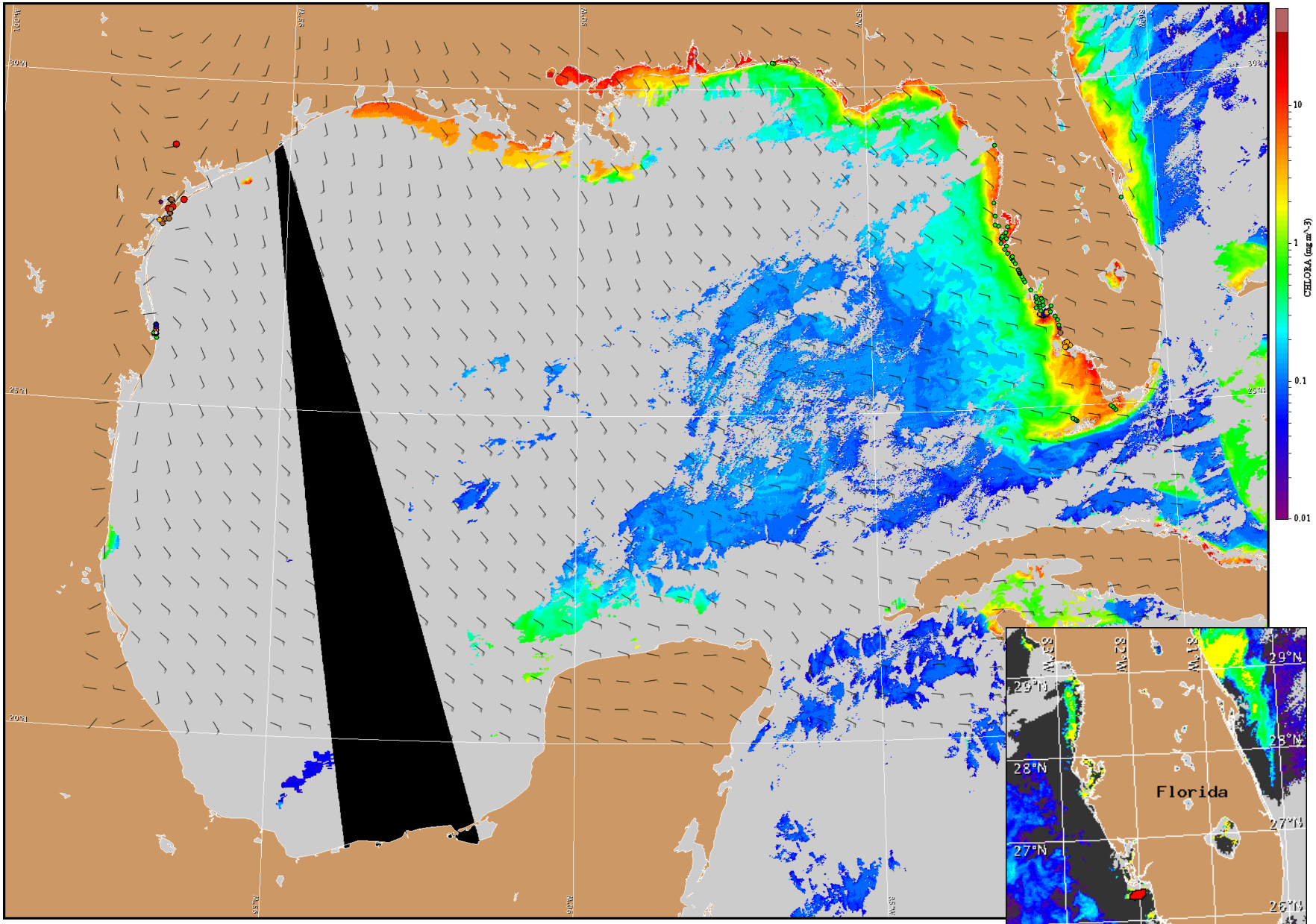
To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive: http://tidesandcurrents.noaa.gov/hab/bulletins.html



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

SW Florida: Easterly winds (14-21 kn, 7-11 m/s) today and Tuesday. Southeasterly to easterly winds (12-17 kn, 6-9 m/s) Wednesday.



Satellite chlorophyll image and forecast winds for December 20, 2011 12Z with cell concentration sampling data from December 9 to 16 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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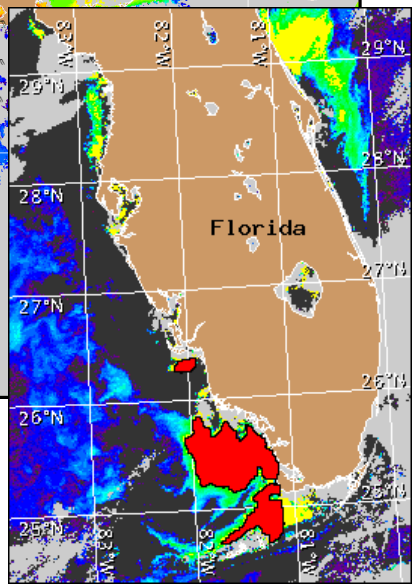

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).